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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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The Law Offices of John C. Scott, LLC
c/o PortfolioIP
P.O. Box 52050
Minneapolis, MN 55402

EXAMINER

YANG, CLARA I

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2635

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/813,178 | Applicant(s) SENGUPTA ET AL. | |
| | Examiner Clara Yang | Art Unit 2635 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 7-12, 14-16, 18, 19, 21-23, and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US 2003/0025603).

Referring to claims 1, 2, 7, and 29, Smith teaches a master authenticator 10, as shown in Fig. 1. Regarding claims 1 and 29, Smith discloses software residing on a remotely located electronic device (i.e., a wireless device), such as a personal digital assistant (PDA), wherein the software contains instructions for the PDA to performing the following steps: (a) receiving a wireless signal from master authenticator 10, which is worn by a user, wherein the wireless signal indicates that the user has been authenticated (see Fig. 2, step 40 and Sections [0005], [0006], [0008], [0011], and [0012]); (b) determining that the user is within a predetermined distance of 5-100 feet of the PDA by transmitting a query to master authenticator 10 and receiving master authenticator 10's response to the query (see Sections [0005], [0007], and [0011]); and (c) automatically logging in the user when the user is within the predetermined distance (see Sections [0007] and [0011]). Regarding claims 2 and 7, Smith teaches that master authenticator 10 comprises: (a) at least one biometric sensor (see Sections [0006] and [0016]); (b) a biometric authentication unit that determines whether the user is authorized with master authenticator 10 based on the user's biometric information (see Sections [0005], [0006], [0008],

and [0016]); and (c) transmitter 16 that transmits a wireless signal indicating that the user has been authenticated when the biometric authentication unit determines that the user is authorized (see Fig. 2, step 60 and Sections [0005], [0007], [0008], and [0016]).

Regarding claims 3, 8, and 9, Smith teaches that master authenticator 10 is a piece of jewelry, such as a bracelet or a wristwatch (see Sections [0006] and [0008]).

Regarding claim 5, Smith discloses that the PDA requires a user to complete a “log on” routine before the user can access the PDA and prevents a user from accessing the PDA when the PDA fails to find a valid master authenticator 10 within a predetermined distance (see Section [0011]). In other words, the PDA is locked until the PDA finds a valid master authenticator 10 within a predetermined distance and determines that the user has completed the log on routine. Hence, the PDA must automatically unlock when it determines that a valid master authenticator 10 is within a predetermined distance and that an authenticated user is logged on.

Regarding claim 10, Smith’s biometric sensor includes at least a voice sensor, a skin temperature sensor, and a fingerprint sensor (see Sections [0006], [0008], and [0016]).

Regarding claim 11, Smith teaches that master authenticator 10 is configured in accordance with a Bluetooth™ protocol (see Sections [0009], [0011], and [0014]).

Regarding claims 12 and 14, Smith’s master authenticator 10 has a display or some other notification structure, such as an audible tone generator for generating a beep, that notifies the user that an event has occurred (see Sections [0011] and [0012]).

Referring to claims 15 and 16, Smith discloses that master authenticator 10 includes a PDA, such a Palm™ devices (see Section [0011]). Though Smith fails to expressly teach the details of the PDA, Palm™ devices all have: (a) at least a display and control buttons (i.e., a user

interface), as called for in claims 15 and 16 and (b) a controller that controls the operation of the PDA, accepts input from a user via the control buttons, and delivers output to the user. In addition, Smith's PDA has (c) a Bluetooth™ transceiver to support wireless communication with another PDA or master authenticator 10 (see Section [0011]); and (d) a controller having a software application that enables the PDA to receive an indication that the user has been authenticated by master authenticator 10, determine the authenticated user is within a predetermine distance by transmitting a query and receiving master authenticator 10's response to the PDA's query, and log in the authenticated user if master authenticator 10's response has been received (see Sections [0005]-[0008], [0011], and [0016]).

Regarding claim 18, Smith teaches that the PDA is configured in accordance with a Bluetooth™ protocol (see Section [0011]).

Regarding claims 19 and 30, as explained in the previous rejection of claim 5, Smith teaches the limitations of the claim.

Regarding claim 21, per Smith, the PDA's controller is programmed to send a wireless notification signal to master authenticator 10 when a predetermined event occurs, causing master authenticator 10 to alert the user in some fashion (see Section [0011]).

Referring to claim 22, Smith teaches that a PDA or cellular telephone identifies an event for which a user is to be notified via master authenticator 10 and transmits a wireless notification signal to master authenticator 10, causing master authenticator 10 to notify the user of the occurrence (see Sections [0011] and [0012]).

Regarding claim 23, Smith teaches that an event includes the cellular telephone receiving a call (see Section [0012]).

Regarding claim 28, as explained in the previous rejection of claim 3, Smith teaches the limitations of the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 2003/0025603) as applied to claims 1 and 15 above, and further in view of Overy et al. (US 2003/0220765).

Regarding claims 4, and 17, though Smith teaches that master authenticator 10 (or the remotely located electronic device, such as a PDA or cellular telephone) is able to determine if the electronic device (or master authenticator 10) is within a predetermined distance of 5-100 feet (see Sections [0005], [0007], and [0011]), Smith fails to expressly teach that master

authenticator 10 is determined to be within the predetermined distance based on its received signal strength at the electronic device.

In an analogous art, Overy discloses a method for enhancing security in a wireless network using distance measurement techniques (see Abstract). Overy's method, as shown in Fig. 4, comprises: (a) wireless transceiver 21A receiving a Bluetooth signal from wireless transceiver 21B, such as a PDA, at step 33 (see Sections [0032]-[0034]); (b) transceiver 21A determining whether the PDA is within a predetermined distance by measuring signal strength (i.e., power level) of the signal received from the PDA at steps 33 and 34 (see Section [0045]); and (c) transceiver 21A automatically allowing secure communication with the PDA (i.e., the PDA to login) when the PDA is authorized via a successful key exchange and is within the predetermined distance at step 37 (see Sections [0037] and [0041]). In order for the PDA to be within a predetermined distance from transceiver 21A, the PDA's signal strength at transceiver 21A must exceed a threshold value representing the predetermined distance.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith's method and electronic device as taught by Overy because (1) adding a device distance criterion to a BluetoothTM network provides enhanced security within a wireless network, and (2) using signal strength measurements to determine the device distance reduces the distance measurement time (see Overy, Sections [0021] and [0045]).

6. Claims 6, 20, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 2003/0025603) as applied to claims 1, 15, and 29 above, and further in view of Kawasaki (US 2004/0046638).

Regarding claims 6, 20, and 31, Smith omits teaching that the electronic device automatically locks when a user is outside a predetermined distance but logged in to the electronic device.

In an analogous art, Kawasaki teaches a terminal device 100, such as a PDA or cellular phone, that performs the following steps, as shown in Fig. 2, when a registered key device 200 attempts to access terminal device 100: (a) receiving a Bluetooth™ signal from key device 200, which is incorporated in a wristwatch, at step 9 (see Sections [0025], [0026], and [0050]); (b) determining that key device 200 is within a predetermined distance since a Bluetooth™ signal from key device 200 (see Sections [0026] and [0057]); (c) automatically logging in the user of key device 200 by connecting to key device 200 and becoming usable at steps 11 and 12 (see Sections [0026] and [0051]-[0053]); and (d) automatically locking when key device 200 is not within the predetermined distance of terminal device 100 at step 15 (see Sections [0013], [0026], [0054], and [0057]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith's method and electronic device as taught by Kawasaki because an electronic device having a terminal lock such that the electronic device automatically locks when master authenticator 10 is outside a predetermined distance is protected against unlawful use by persons other than the lawful user thereof (see Kawasaki, Sections [0004] and [0057]).

7. Claims 13 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 2003/0025603) as applied to claims 7 and 22 above, and further in view of Byrne (US 6,424,251).

Referring claims 13 and 24-27, though Smith discloses that master authenticator 10 notifies a user of an event via a small display and/or audible tone generator (i.e., notification structures) for generating a beep (see Sections [0011] and [0012]), Smith is silent on: (a) using a particular notification structure to notify a user based on the user's current location, as called for in claims 13 and 25; (b) a user specifying one or more events, as called for in claim 24; (c) the electronic device determining the location of master authenticator 10, determining whether one type of notification has been identified for the location, and configuring the wireless notification signal to identify the type of notification within master authenticator 10 when the notification has been identified for the location, as called for in claim 26; and (d) the electronic device causing master authenticator 10 to indicate an event via vibration for a first location, as called for in claim 27.

In an analogous art, Byrne teaches a personal electronic device notification system, as shown in Fig. 2. Per Byrne, personal electronic device 22, such as portable telephones and PDAs, comprises transmitter 23 that transmits signal 26 (i.e., a wireless notification signal) to wristwatch 25 containing alert mechanism 24 (see Col. 1, lines 16-20; Col. 2, lines 55-65). The alert mechanism shown in Fig. 3 has notification structures including a vibration unit, an audible unit, an electrical stimulus unit, and a liquid crystal display (LCD) that displays information conveyed via signal 26 (see Col. 1, lines 59-64 and Col. 3, lines 11-29). Byrne's personal electronic device 22 (hereinafter referred to as a "cellular phone") has (a) a user interface that enables a user to configure the cellular phone such that phone is set up to use an alert mechanism (see Col. 3, lines 30-35); thus the cellular phone must also have (b) a controller that controls the cellular phone based on the configuration entered by the user via a user interface and signals received from control mechanisms (see Col. 3, lines 30-45 and Col. 4, lines

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12-53). Byrne's cellular phone also comprises (c) a transmitter and receiver to transmit wireless signals to an alert mechanism and to receive wireless signals from each control mechanism's transmitter 63 (see Col. 4, lines 42-53). Byrne teaches that events include receiving a telephone call within the cellular phone and that the user configures the phone such that it notifies the user of events (see Col. 3, lines 7-17 and 38-45). The event is user-specified because the user configures the cellular phone to notify the user via the alert mechanism that personal electronic device 22 is receiving a call, as called for in claim 24. Per Byrne, a cellular phone is automatically placed into a silent mode when it receives a signal from a control mechanism, wherein audible alerts are turned off and only mechanical, electrical (e.g., vibration), or visual alerts are used in the silent mode, and is caused to exit the silent mode once the cellular phone is removed from the area containing the control mechanisms (see Col. 3, lines 64-67 and Col. 4, lines 1-53). In other words, the cellular phone's notification structures are used based on the user's current location. When a cellular phone comes within range of a control mechanism (i.e., a first type of location), Byrne's cellular phone determines its present location (i.e., within range of a control mechanism), enters the silent mode (i.e., determines that only mechanical, vibration, or visual alerts are to be used for the present location), and configures and transmits signal 95 to the alert mechanism, causing the alert mechanism to notify the user of the event (see Col. 4, lines 1-53), as called for in claims 26 and 27. Though Byrne fails to expressly teach that the alert mechanism is then placed into a silent alert operation upon receiving signal 95, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Byrne's cellular phone and alert mechanism such that signal 95 causes the alert mechanism to notify a user of an event via only the mechanical, vibration, or visual notification structures when the user's current location is within range of the control mechanisms (i.e., a first

type of location), as called for in claims 13, 25, 26, and 27, since the cellular phone itself is placed into a silent mode to avoid disturbing people in an area having control mechanisms (see Col. 1, lines 64-67; Col. 2, lines 1-4; Col. 3, lines 64-67; and Col. 4, lines 1-53).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith's method and system as taught by Byrne because it is desirable to have a master authenticator notify a user of an event using only a vibration or visual alert in certain areas, such as restaurants, to avoid disturbing people in such areas (see Byrne, Col. 1, lines 64-67; Col. 2, lines 1-4; Col. 3, lines 64-67; and Col. 4, line 1).

8. Claims 32-34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 2003/0025603) in view of Deng et al. (US 2003/0043078).

Referring to claim 32, Smith, as explained in the previous rejection of claim 15, teaches all the limitations but omits teaching that the PDA, which must have at least an antenna for communicating via a Bluetooth protocol (see Section [0011]), has at least one dipole antenna.

In an analogous art, Deng teaches a dipole antenna module formed on a printed circuit board of a Bluetooth™ chip for devices such as PDAs and mobile phones (see Sections [0005] and [0031]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith's PDA as taught by Deng because forming a dipole antenna on a printed circuit board saves space on the printed circuit board and enables the main function circuit and the dipole antenna to be integrated on a single chip for miniaturization (see Deng, Sections [0006], [0013] and [0015]).

Regarding claims 33, 34, and 36 Smith teaches all the limitations as explained in the previous rejection of claims 18, 19, and 21 respectively.

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9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 2003/0025603) in view of Deng et al. (US 2003/0043078) as applied to claim 32 above, and further in view of Kawasaki (US 2004/0046638).

Regarding claim 35, Smith and Deng omit teaching that the electronic device automatically locks when a user is outside a predetermined distance but logged in to the electronic device.

In an analogous art, Kawasaki teaches the limitation as explained in the previous rejection of claim 20.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith and Deng's method and electronic device as taught by Kawasaki because an electronic device having a terminal lock such that the electronic device automatically locks when master authenticator 10 is outside a predetermined distance is protected against unlawful use by persons other than the lawful user thereof (see Kawasaki, Sections [0004] and [0057]).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Suzuki et al. (US 2001/0049471) teach using different notification means based on a user's location.
- Udom (US 2003/0023882) teaches a security system wherein a biometric sensor is coupled to a PDA or cellular telephone, and the PDA or cellular telephone transmits an authentication signal to a device to be accessed when a user has been authenticated.
- Berney (US 2003/0046228) teaches a wristwatch having a biometric sensor and a transmitter for transmitting a signal that indicates that a user has been authenticated.

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- Prokoski et al. (US 6,850,147B2) teach a personal biometric key having a biometric sensor and a Bluetooth™ transmitter.
- Gordon (US 2005/0130600) teaches a PDA having a dipole antenna for Bluetooth™ communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (571) 272-3062. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CY
23 February 2006



BRIAN ZIMMERMAN
PRIMARY EXAMINER